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Technical Report No. 34

## EASTERN NORTH PACIFIC OFFSHORE PHYSICAL AND CHEMICAL DATA

July - September 1953

Office of Naval Research  
Contract N8onr-520/III  
Project NR 083 012  
Contract Nonr-477(01)  
Project NR 083 072

Reference 54-20  
June 1954

SEATTLE 5, WASHINGTON

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UNIVERSITY OF WASHINGTON DEPARTMENT OF OCEANOGRAPHY  
(Formerly Oceanographic Laboratories)  
Seattle, Washington

EASTERN NORTH PACIFIC  
OFFSHORE PHYSICAL AND CHEMICAL DATA  
July - September 1953

by

Robert G. Paquette, Eugene E. Collias,  
and Cuthbert M. Love

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Richard H. Fleming  
Executive Officer

## INTRODUCTION

This report contains all of the offshore data from July through September, 1953 (Cruises 31 and 33) collected by University of Washington personnel aboard the Department of Oceanography research vessel BROWN BEAR. Station location charts are presented before the data for each cruise (see pages 1 and 8).

Technical Report No. 22 presents all the offshore data collected during 1952, and Technical Report No. 23 presents the offshore data collected from April through June, 1953. Other reports in this series contain data for stations inside the Strait of Juan de Fuca and Puget Sound.

### Station Numbering System

All stations occupied by the BROWN BEAR are numbered consecutively, independent of their location.

### Sampling Bottles

Water samples were taken with Nansen bottles and Fjarlie bottles (1).

### Determination of Properties

Deep-sea reversing thermometers were used to determine temperature. Copenhagen standard sea water was used exclusively as the standard in the determination of salinity of the sea water. Dissolved oxygen was determined by the modified Winkler method described by

Thompson and Robinson (2). The depths reported for sub-surface observations were calculated from measured wire angle, unprotected reversing thermometer readings, and curves of wire length minus thermometric depth versus wire length ( $L-Z$  vs.  $L$ ), as described by LaFond (3).

Data

The time at which the messenger was dropped on the first cast is listed for the +8 time zone. Positions are given to the nearest minute. Depth in fathoms was obtained with the aid of a Navy NMC echo sounder. Weather is reported in the Navy bathythermograph weather code given in H. O. Publication No. 606-C, except in cases where the only weather phenomenon reported is the state of the sky. For the state of the sky the following symbols were used: b., clear sky; b.c., blue sky with detached clouds; c., sky mainly cloudy; and o., sky overcast. Wind direction is reported in degrees true; the wind velocity is given in knots. Air temperature is recorded in degrees Fahrenheit, with the dry bulb reading given first, followed by a virgrile (/) and then the wet bulb reading. Type of clouds is reported in the bathythermograph weather code, the amount of clouds in tenths of the sky covered.

All data are actual observed values. During Cruise 31 the maximum depth of sampling was 2000 meters wherever the depth of the water permitted. On Cruise 33 the maximum depth of sampling was 250 meters for the majority of stations, with a few stations at 1250 meters. Clearly questionable data have been excluded.

The presentation of these data in this form does not constitute publication. Subsequent, more rigorous analyses of these data may disclose errors which are not apparent at this time.

#### REFERENCES

- (1) Fjarlie, R. L. I.  
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Sea Water. Jour. Mar. Res., 2(1):1-8.
- (3) LaFond, E. C.  
1951. Processing Oceanographic Data. U. S. Navy H. O.  
Publication No. 614, Washington, D. C.

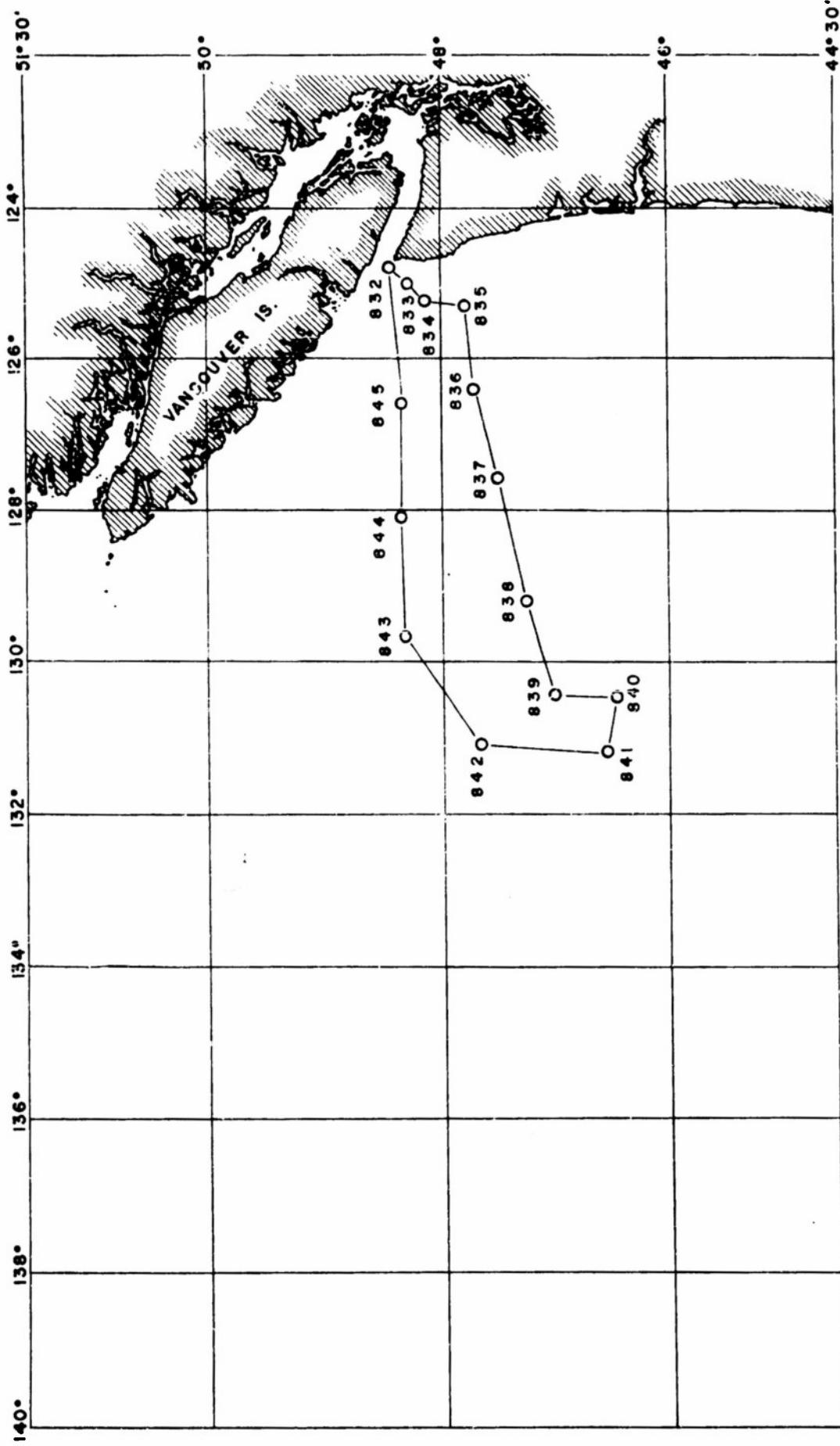
## PERSONNEL

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Kinison, Roberta F.	Secretary
Toner, Roberta J.	Clerk



Oceanographic Station Locations  
Brown Bear Cruise No. 31  
1-13 August 1953

STA 832      48° 27' N      WEATHER b.  
 1 Aug 53      124° 49' W      WIND 090° 8  
 0755 (+8)      DEPTH 172 fm 52°/51° F  
 CLOUDS --0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	9.77	32.10	0.400
5	9.74	32.14	0.394
10	9.60	32.18	0.379
19	9.00	32.54	0.324
29	8.52	32.79	0.295
48	7.99	33.11	0.274
72	7.12	33.57	0.220
96	6.70	33.76	0.201
114	6.40	33.81	0.178
192	6.26	33.91	0.173
288	6.06	33.91	0.169

STA 834      48° 08' N      WEATHER b.c.  
 1 Aug 53      125° 15' W      WIND 270° 10  
 1258 (+8)      DEPTH 155 fm 55°/54° F  
 CLOUDS --1/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	12.38	31.27	0.523
5	12.22	31.27	0.558
10	11.89	31.82	0.491
20	10.52	32.14	0.425
30	8.96	32.46	0.394
48	7.76	32.76	0.378
74	7.27	33.24	0.320
98	6.88	33.78	0.222
114	6.32	-----	0.168
197	5.96	34.00	0.142

STA 833      48° 17' N      WEATHER b.c.  
 1 Aug 53      125° 01' W      WIND 335° 7  
 1051 (+8)      DEPTH 164 fm 57°/56° F  
 CLOUDS 1-1/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	12.33	31.55	0.522
5	11.26	31.73	0.489
10	10.00	32.26	0.416
20	8.77	32.68	0.312
29	7.96	32.98	0.242
48	6.90	33.56	0.164
73	6.56	33.80	0.164
98	6.42	33.86	0.154
114	6.19	-----	0.144
193	6.03	33.96	0.145

STA 835      47° 47' N      WEATHER b.c.  
 1 Aug 53      125° 19' W      WIND 315° 16  
 1647 (+8)      DEPTH 540 fm 61°/58° F  
 CLOUDS --1/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.33	31.88	0.511
4	15.31	31.88	0.520
8	15.28	31.89	0.509
17	13.26	32.33	0.565
25	11.54	32.48	0.588
42	9.26	32.57	0.515
61	8.52	32.61	-----
80	8.14	32.94	0.448
115	7.58	-----	0.366
151	7.31	33.17	0.240
233	6.40	33.95	0.172
414	5.45	34.05	0.090
647	4.45	34.22	0.029

STA 836    47° 39' N    WEATHER b.c.  
 2 Aug 53    126° 19' W    WIND 315° 25  
 0213 (+8)    DEPTH 1220 fm 58°/57° F  
 CLOUDS 8-3/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.72	32.22	0.504
5	15.72	32.23	0.499
10	15.71	32.23	0.499
19	15.69	32.24	0.497
28	12.48	32.32	0.570
46	9.80	32.47	0.558
92	7.76	32.87	0.470
136	7.08	33.62	0.356
180	6.66	-----	0.306
237	6.28	33.92	0.201
420	4.94	34.00	0.112

STA 837    47° 30' N    WEATHER 50  
 2 Aug 53    127° 38' W    WIND 315° 16  
 1802 (+8)    DEPTH 1410 fm 60°/58° F  
 CLOUDS --10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.32	32.55	0.500
5	15.30	32.53	0.501
10	15.32	32.54	0.496
19	15.30	32.57	0.498
29	15.34	32.56	0.490
48	10.28	32.57	0.566
94	7.53	32.63	0.549
140	7.12	32.97	0.403
186	6.69	33.53	0.358
277	5.52	33.82	0.251
416	4.66	33.98	0.105
459	4.62	34.04	0.073
468	4.62	34.07	0.069
696	4.11	34.28	0.022
1157	3.05	34.45	0.027
1928	2.01	34.58	0.080

STA 838    47° 16' N    WEATHER 51  
 3 Aug 53    129° 11' W    WIND 348° 9  
 0603 (+8)    DEPTH 1380 fm 57°/55° F  
 CLOUDS 6-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.08	32.30	0.513
5	15.04	32.30	0.514
10	15.06	32.29	0.513
20	15.04	32.30	0.513
30	14.11	32.48	0.534
50	10.34	32.48	0.585
74	7.80	32.60	0.572
98	7.16	32.64	0.559
145	6.86	33.46	-----
176	6.72	-----	-----
192	6.46	33.86	0.299
258	5.84	-----	-----
289	5.44	33.93	0.256
435	4.51	34.01	0.098
660	4.04	34.22	0.025
890	3.56	34.36	0.014
1358	2.68	34.50	0.034
1836	2.04	34.60	0.082

STA 839    47° 01' N    WEATHER a  
 3 Aug 53    130° 27' W    WIND 331° 8  
 2013 (+8)    DEPTH 1600 fm 58°/56° F  
 CLOUDS 6-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	14.98	32.52	0.517
5	14.94	32.51	0.513
10	14.85	32.52	0.516
20	13.78	32.51	0.545
30	11.82	32.52	0.562
50	8.76	32.56	0.572
75	7.45	32.60	0.570
99	7.00	32.74	0.540
148	6.37	33.18	0.364
192	5.94	33.87	0.308
295	5.06	33.96	0.202
492	4.20	34.06	0.089
737	3.68	34.28	0.034
983	3.16	34.42	0.027
1478	2.36	34.54	0.054
1973	1.95	34.61	0.113

STA 840    46° 28' N    WEATHER o.  
 4 Aug 53    130° 27' W    WIND 293° 8  
 0230 (+8) DEPTH 1220 fm 55°/-0° F  
 CLOUDS 6-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	14.84	32.50	0.513
5	14.80	32.51	0.510
10	14.70	32.50	0.524
20	14.28	32.52	0.523
29	12.48	32.51	0.558
48	10.70	32.51	0.575
72	8.44	32.58	0.573
96	7.62	32.78	0.528
145	6.89	33.39	0.357
193	6.23	33.87	0.291
292	5.46	33.91	0.211
486	4.36	34.01	0.089
730	3.73	34.26	0.027
974	3.34	34.41	0.021
1470	2.42	34.52	0.063
1966	1.99	34.60	0.117

STA 841    46° 32' N    WEATHER c.  
 4 Aug 53    131° 12' W    WIND 335° 7  
 0905 (+8) DEPTH 11400 fm 62°/59° F  
 CLOUDS 1, 6, 8-6/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	14.82	32.48	0.522
5	14.79	32.48	0.525
10	14.70	32.48	0.532
20	12.47	32.48	0.564
30	10.92	32.50	0.573
50	8.62	32.57	0.577
74	7.44	32.59	0.576
99	6.88	32.65	0.567
148	6.68	32.98	0.441
192	6.27	33.86	0.322
290	5.26	33.91	0.225
485	4.40	34.07	0.085
733	3.78	34.25	0.027
980	3.32	34.40	0.020
1475	2.42	34.49	0.066
1972	1.97	34.60	0.129

STA 842    47° 40' N    WEATHER b.c.  
 11 Aug 53    131° 05' W    WIND 350° 13  
 2326 (+8)    DEPTH 1540 fm 60°/58° F  
 CLOUDS 6-4/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.43	32.49	0.545
5	15.41	32.49	0.545
10	15.44	32.48	0.519
19	15.42	32.48	0.548
29	14.12	32.48	0.585
48	10.40	32.53	0.617
72	7.92	32.57	0.611
96	7.19	32.68	0.572
144	6.69	33.60	0.346
191	6.34	33.87	0.274
263	5.72	33.96	0.170
285	5.52	---	---
448	4.68	---	---
473	4.57	34.15	0.068
683	3.95	34.29	0.024
717	3.86	34.30	0.026
923	3.34	34.41	0.025
954	3.28	---	0.027
1405	2.48	34.53	0.058
1892	1.93	34.61	0.119

STA 843    48° 18' N    WEATHER b.c.  
 12 Aug 53    129° 41' W    WIND 333° 16  
 1521 (+8)    DEPTH 1380 fm 62°/58° F  
 CLOUDS 6-2/10

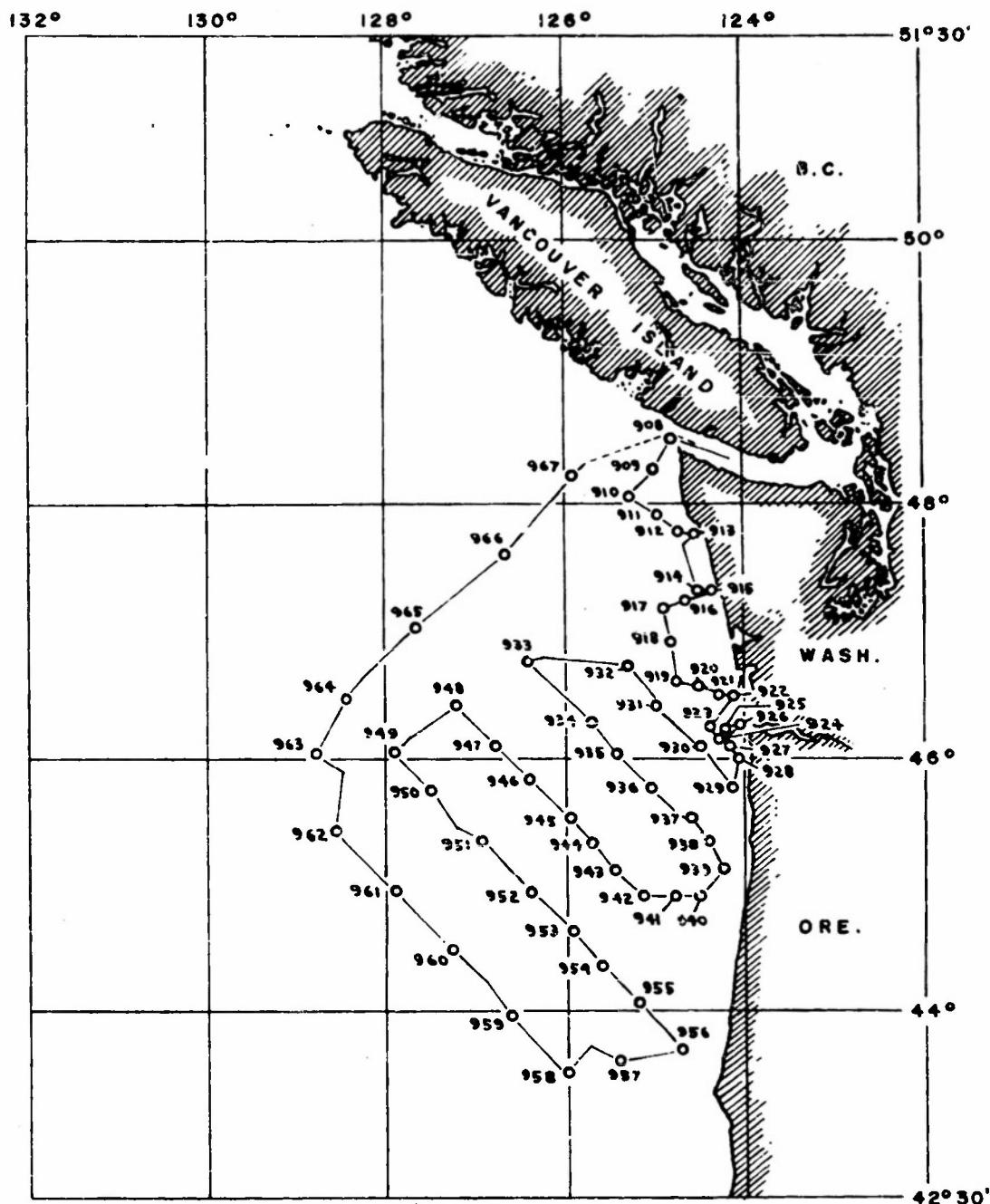
Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.60	32.33	0.534
5	15.60	32.34	0.534
9	15.59	32.34	0.533
18	15.55	32.33	0.531
28	15.51	32.33	0.534
46	9.99	32.47	0.637
69	7.99	32.54	0.604
93	7.26	32.70	0.562
140	7.37	33.74	0.389
156	7.26	33.82	0.268
185	6.90	33.89	0.245
230	6.27	33.95	0.205
388	5.26	---	0.111
590	4.53	34.22	0.035
806	3.93	34.34	0.024
1252	2.86	34.47	0.038
1706	2.22	34.56	0.088

STA 844      48° 20' N      WEATHER b.  
 13 Aug 53    128° 05' W      WIND 345° 22  
 0312 (+8)    DEPTH 1400 fm 58°/56° F  
 CLOUDS --0/10

Depth (m)	Temp (°C)	Sal (°/oo)	O <sub>2</sub> (mg-at/L)
0	15.10	32.17	0.543
4	15.07	32.19	0.544
8	15.09	32.19	0.543
17	15.08	32.19	0.545
26	15.11	32.16	0.539
43	11.04	32.50	0.622
64	8.46	32.57	0.566
85	7.44	32.63	0.578
128	6.82	33.61	0.382
172	6.38	33.84	0.330
186	----	33.85	-----
281	5.38	33.91	0.236
474	4.80	-----	0.087
716	4.10	34.29	0.027
956	3.52	34.42	0.025
1431	2.56	-----	-----
1910	1.99	34.59	0.121

STA 845      48° 20' N      WEATHER b.c.  
 13 Aug 53    126° 35' W      WIND 333° 10  
 1410 (+8)    DEPTH 1260 fm 62°/58° F  
 CLOUDS 6-1/10

Depth (m)	Temp (°C)	Sal (°/oo)	O <sub>2</sub> (mg-at/L)
0	15.17	32.10	0.550
5	15.12	32.12	0.552
10	14.86	32.12	0.551
20	14.59	32.16	0.556
30	11.64	32.33	0.626
49	9.19	32.49	0.568
73	8.25	32.63	0.543
96	7.56	33.20	0.406
144	7.16	33.81	0.277
182	6.78	-----	0.255
193	6.64	33.95	0.241
275	5.98	33.99	0.174
466	4.88	-----	0.099
710	4.14	34.26	0.027
955	3.54	34.39	0.028
1441	2.58	-----	-----
1926	1.94	34.59	0.130



Oceanographic Station Locations  
Brown Bear Cruise No. 33  
3-12 September 1953

STA 908 48° 29' N WEATHER b.  
 3 Sept 53 124° 45' W WIND 090° 5  
 0059 (+8) DEPTH 147 fm 55°/53° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	10.74	31.88	0.421
10	10.75	31.88	0.416
20	9.24	32.19	0.343
30	8.86	32.35	0.285
49	8.72	32.74	0.248
74	7.94	33.27	0.208
98	7.38	33.58	0.187
148	6.78	33.79	0.167
197	6.60	33.83	0.153
247	6.58	33.92	0.166

STA 910 48° 03' N WEATHER b.  
 3 Sept 53 125° 13' W WIND 060° 8  
 0635 (+8) DEPTH 80 fm 60°/58° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	14.86	32.02	0.563
5	14.84	32.04	0.562
10	13.48	32.17	0.562
20	10.56	32.46	0.584
30	8.80	32.56	0.549
49	8.12	32.66	0.513
74	7.54	33.16	0.419
99	7.28	33.50	0.312
138	6.83	33.92	0.176

STA 909 48° 16' N WEATHER b.  
 3 Sept 53 124° 59' W WIND 060° 6  
 0402 (+8) DEPTH 114 fm 58°/57° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.54	30.00	0.541
10	12.82	32.17	0.539
20	10.08	32.46	0.375
30	8.24	32.80	0.275
50	7.42	33.12	0.332
75	7.15	33.47	0.277
100	6.83	33.70	0.209
150	6.68	33.88	0.178
200	6.60	33.91	0.161

STA 911 47° 54' N WEATHER b.  
 3 Sept 53 124° 56' W WIND 310° 8  
 0843 (+8) DEPTH 55 fm 66°/62° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.91	29.88	0.539
5	15.44	31.33	0.530
10	14.96	31.79	0.544
20	13.62	32.22	0.529
30	12.84	32.37	0.479
49	7.66	33.32	0.249
73	7.22	33.72	0.222
97	6.99	33.82	0.147

STA 912      47° 47' N      WEATHER b.  
 3 Sept 53    124° 43' W      WIND 150° 4  
 101C (+8)    DEPTH 29 fm    61°/57° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.69	29.88	0.535
5	15.32	30.33	0.517
10	14.98	31.55	0.486
20	12.54	32.27	0.441
30	9.93	32.58	0.349
50	7.57	33.48	0.177

STA 914      47° 19' N      WEATHER b.  
 3 Sept 53    124° 31' W      WIND 000° 8  
 1550 (+8)    DEPTH 32 fm    70°/65° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.06	29.56	0.558
5	17.28	30.13	0.573
10	14.50	31.74	0.503
20	11.80	32.38	0.409
30	8.52	32.93	0.270
50	7.40	33.59	0.103

STA 913      47° 47' N      WEATHER b.  
 3 Sept 53    124° 34' W      WIND 180° 3  
 1115 (+8)    DEPTH 14 fm    62°/60° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.94	29.65	0.600
5	15.85	29.79	0.573
10	14.17	31.92	0.495
15	12.81	32.27	0.448
20	10.68	32.71	0.307

STA 915      47° 19' N      WEATHER b.  
 3 Sept 53    124° 22' W      WIND 000° 8  
 1704 (+8)    DEPTH 13 fm    69°/65° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.08	30.55	0.597
5	15.58	30.69	0.569
10	13.23	32.00	0.428
15	12.00	32.22	0.362
20	10.88	32.51	0.297

STA 916 47° 14' N WEATHER b.  
 3 Sept 53 124° 41' W WIND 000° 6  
 1904 (+8) DEPTH 55 fm 65°/62° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.09	39.33	0.531
10	15.46	31.62	0.589
20	13.65	32.15	0.496
30	11.34	32.53	0.398
50	7.78	33.20	0.284
75	7.46	33.76	0.283
95	7.00	33.85	0.166

STA 918 46° 51' N WEATHER b.  
 3 Sept 53 124° 47' W WIND 350° 10  
 2258 (+8) DEPTH 84 fm 63°/61° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.30	31.56	0.536
10	14.64	32.12	0.551
20	12.98	32.28	0.501
30	10.70	32.61	0.423
49	7.74	32.75	0.446
73	7.58	33.32	0.297
97	7.12	33.77	0.201
145	6.84	33.90	0.155

STA 917 47° 08' N WEATHER b.  
 3 Sept 53 124° 52' W WIND 345° 10  
 2038 (+8) DEPTH 79 fm 62°/60° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.54	32.16	0.499
10	16.25	32.15	0.493
20	9.80	32.48	0.576
30	8.79	32.58	0.540
49	8.04	32.66	0.507
74	7.65	33.11	0.418
98	7.52	33.60	0.286
123	6.85	33.87	0.164

STA 919 46° 34' N WEATHER b.  
 4 Sep 53 124° 46' W WIND 000° 10  
 0131 (+8) DEPTH 540 fm 64°/60° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.18	31.57	0.515
10	16.09	31.87	0.517
20	15.54	32.14	0.525
30	10.71	32.50	0.609
50	9.05	32.59	0.545
74	8.36	32.98	0.450
99	7.89	33.44	0.358
148	7.28	33.87	0.155
198	6.84	33.93	0.224
248	6.32	33.97	0.210

STA 920    46° 33' N    WEATHER b.  
 4 Sept 53    124° 30' W    WIND 070° 17  
 0342 (+8)    DEPTH 140 fm    64°/60° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.47	30.10	0.513
10	14.89	31.00	0.501
19	10.86	32.34	0.348
29	8.98	32.79	0.271
48	7.52	33.31	0.255
193	6.69	-----	0.161
242	6.64	33.96	0.157

STA 922    46° 30' N    WEATHER b.  
 4 Sept 53    124° 07' W    WIND 040° 11  
 0641 (+8)    DEPTH 12 fm    65°/59° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.44	29.08	0.521
5	15.54	31.49	0.524
10	15.32	31.67	0.507
15	13.71	32.08	0.438
20	10.58	32.49	0.346

STA 921    46° 30' N    WEATHER b.  
 4 Sept 53    124° 16' W    WIND 040° 11  
 0540 (+8)    DEPTH 37 fm    64°/59° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.47	30.72	0.515
10	13.26	31.65	0.432
20	10.85	32.50	0.329
30	8.06	32.94	0.288
40	7.53	33.31	0.259
50	7.46	33.57	0.254

STA 923    46° 14' N    WEATHER b.  
 4 Sept 53    124° 21' W    WIND 010° 8  
 0942 (+8)    DEPTH 64 fm    67°/62° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.92	24.73	0.533
10	15.07	32.12	0.523
20	11.36	32.34	0.507
30	8.46	32.54	0.483
50	7.58	33.22	0.349
75	7.47	33.65	0.273
100	6.84	33.94	0.164

STA 924    46° 09' N    WEATHER b.  
 4 Sept 53 124° 15' W    WIND 215° 8  
 1058 (+8) DEPTH 50 fm    66°/63° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.20	28.11	0.529
5	16.28	30.81	0.517
10	15.32	32.02	0.532
20	12.28	32.27	0.518
30	8.96	32.56	0.364
50	7.69	32.94	0.364
75	6.98	33.84	0.170

STA 926    46° 15' N    WEATHER 47  
 4 Sept 53 124° 07' W    WIND 240° 9  
 1305 (+8) DEPTH 9 fm    66°/64° F  
 CLOUDS -----

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.24	21.60	0.537
5	14.72	30.57	0.480
10	11.94	32.30	0.371
15	10.56	32.74	0.324

STA 925    46° 12' N    WEATHER 46  
 4 Sept 53 124° 11' W    WIND 235° 9  
 1203 (+8) DEPTH 30 fm    67°/64° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.14	24.58	0.548
5	15.80	30.18	0.522
10	15.62	31.56	0.525
20	14.89	31.97	0.507
30	8.16	32.76	0.359
50	7.40	33.65	0.172

STA 927    46° 05' N    WEATHER 42  
 4 Sept 53 124° 09' W    WIND 215° 11  
 1449 (+8) DEPTH 44 fm    60°/59° F  
 CLOUDS 0-0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.16	27.86	0.550
5	15.85	31.32	0.537
10	14.86	32.08	0.532
20	10.81	32.37	0.439
30	8.58	32.69	0.350
50	7.86	33.40	0.212
75	7.30	33.73	0.157

STA 928       $46^{\circ} 00' N$       WEATHER o.  
 4 Sept 53     $124^{\circ} 03' W$       WIND  $215^{\circ}$  11  
 1655 (+8)    DEPTH 30 fm       $59^{\circ}/58^{\circ}$  F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
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0	17.20	37.41	0.572
10	15.30	31.92	0.493
20	11.16	32.50	0.358
30	9.91	33.02	0.339
40	7.88	33.46	0.225
50	7.52	33.62	0.184

STA 930       $46^{\circ} 05' N$       WEATHER o.  
 4 Sept 53     $124^{\circ} 29' W$       WIND  $235^{\circ}$  8  
 2223 (+8)    DEPTH 75 fm       $59^{\circ}/58^{\circ}$  F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
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0	16.89	38.04	0.539
10	15.97	32.03	0.459
20	12.70	32.24	0.488
30	9.95	32.52	0.354
50	7.68	33.06	0.334
74	7.34	33.60	0.234
99	7.23	33.82	0.203
124	7.04	33.88	0.133

STA 929       $45^{\circ} 46' N$       WEATHER o.  
 4 Sept 53     $124^{\circ} 05' W$       WIND  $215^{\circ}$  12  
 1910 (+8)    DEPTH 43 fm       $59^{\circ}/58^{\circ}$  F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
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0	15.57	31.09	0.557
5	15.04	31.67	0.487
10	12.59	32.32	0.443
20	10.61	32.89	0.357
30	8.66	33.04	0.295
50	7.78	33.55	0.241
70	7.30	33.80	0.154

STA 931       $46^{\circ} 23' N$       WEATHER c.  
 5 Sept 53     $124^{\circ} 55' W$       WIND  $215^{\circ}$  6  
 0554 (+8)    DEPTH 585 fm       $60^{\circ}/59^{\circ}$  F  
 CLOUDS 0-8/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
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0	17.40	32.16	0.488
10	17.37	32.17	0.487
20	16.99	32.17	0.493
30	13.97	32.48	0.574
49	10.02	32.61	0.580
73	8.76	32.64	0.533
98	8.67	33.02	0.439
145	7.48	33.70	0.274
192	7.10	33.91	0.225
238	6.70	33.95	0.203

STA 932 46° 41' N WEATHER o.  
 5 Sept 53 125° 19' W WIND 160° 8  
 0946 (+8) DEPTH 1100 fm 62°/59° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.46	32.10	0.499
10	16.26	32.09	0.504
20	14.66	32.18	0.544
30	10.96	32.41	0.528
50	9.10	32.60	0.547
75	8.28	32.74	0.496
100	7.65	33.14	0.377
150	7.04	33.83	0.206
199	6.61	33.95	0.187
298	6.00	34.02	0.151
495	5.08	34.10	0.074
742	4.18	34.29	0.027
989	3.61	34.42	0.029
1234	3.04	34.44	0.056

STA 934 46° 16' N WEATHER o.  
 5 Sept 53 125° 41' W WIND 200° 10  
 2259 (+8) DEPTH 1150 fm 61°/59° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.13	31.93	0.482
10	17.12	31.94	0.488
20	14.17	32.36	0.558
30	11.32	32.58	0.619
49	9.63	32.64	0.528
74	8.69	32.80	0.477
98	8.26	33.18	0.369
144	7.64	33.74	0.243
197	6.97	33.95	0.205
246	6.42	34.00	0.178

STA 933 46° 45' N WEATHER c.  
 5 Sept 53 126° 23' W WIND 160° 6  
 1620 (+8) DEPTH 1400 fm 63°/60° F  
 CLOUDS 0-9/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.04	32.26	0.493
10	16.78	32.24	0.492
20	16.64	32.25	0.495
30	13.56	32.51	0.593
50	10.48	32.58	0.612
75	8.55	32.68	0.522
100	8.20	33.29	0.369
150	7.38	33.83	0.267
200	6.74	33.95	0.239
296	5.84	-----	-----
491	4.90	34.13	0.082
734	4.08	34.29	0.029
980	3.55	34.43	0.027
1225	3.02	34.51	0.050

STA 935 46° 01' N WEATHER o.  
 6 Sept 53 125° 23' W WIND 220° 8  
 0156 (+8) DEPTH 810 fm 62°/60° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.15	31.60	0.491
10	17.00	31.91	0.488
20	13.34	32.48	0.578
30	11.27	32.56	0.609
50	9.70	32.64	0.529
74	8.92	32.73	0.501
98	8.42	33.14	0.404
144	7.78	33.67	0.269
189	6.86	33.95	0.226
233	6.49	33.98	0.196

STA 936 45° 45' N WEATHER 60  
 6 Sept 53 125° 01' W WIND 200° 1  
 0519 (+8) DEPTH 800 fm 62°/59° F  
 CLOUDS 0-9/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.18	32.14	0.511
10	16.68	31.44	0.499
20	15.12	32.33	0.536
30	11.38	32.57	0.618
50	9.33	32.80	0.554
75	7.99	-----	0.485
99	7.59	33.31	0.328
149	7.46	33.82	0.254
194	6.98	33.94	0.217
199	6.90	33.95	0.219
292	6.37	34.02	0.151
488	5.26	34.14	0.075
686	4.29	34.27	0.032

STA 938 45° 19' N WEATHER 0.  
 6 Sept 53 124° 23' W WIND 150° 15  
 1258 (+8) DEPTH 150 fm 61°/60° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.19	31.96	0.522
10	15.68	31.96	0.533
20	14.58	32.18	0.503
30	10.28	32.39	0.492
50	8.02	32.64	0.474
74	7.71	33.09	0.382
99	7.89	33.58	0.305
149	7.24	33.87	0.225
199	6.85	33.98	0.200
248	6.62	33.98	0.160

STA 937 45° 30' N WEATHER 0.  
 6 Sept 53 124° 38' W WIND 225° 5  
 1035 (+8) DEPTH 200 fm 63°/61° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.88	32.05	0.492
10	16.80	32.17	0.494
20	16.72	32.18	0.497
30	15.13	32.25	0.526
50	8.61	32.56	0.496
75	7.70	33.04	0.390
100	7.63	33.51	0.306
149	7.30	33.87	0.237
199	6.94	33.99	0.188
249	6.68	-----	0.177

STA 939 45° 09' N WEATHER 0.  
 6 Sept 53 124° 11' W WIND 160° 8  
 1634 (+8) DEPTH 68 fm 61°/60° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.64	32.05	0.557
5	15.19	32.10	0.552
10	14.69	32.21	0.532
20	10.96	32.80	0.425
30	8.39	33.13	0.322
49	8.04	33.56	0.237
74	7.46	33.78	0.157
98	7.32	33.85	0.132

STA 940    44° 54' N    WEATHER o.  
 6 Sept 53    124° 29' W    WIND 180° 6  
 1949 (+8)    DEPTH 140 fm    61°/59° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.31	31.96	0.515
10	16.03	31.93	0.519
20	12.50	32.20	0.485
30	9.10	32.47	0.482
49	7.96	32.76	0.386
73	7.85	33.37	0.307
98	7.44	33.66	0.238
147	7.10	33.86	0.196
196	7.02	33.96	0.162
244	6.82	33.98	0.153

STA 942    44° 54' N    WEATHER c.  
 7 Sept 53    125° 09' W    WIND 000° 4  
 0138 (+8)    DEPTH 850 fm    61°/60° F  
 CLOUDS 0-9/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.56	32.09	0.499
10	16.38	32.08	0.500
20	13.12	32.22	0.499
30	10.13	32.44	0.462
49	8.04	32.73	0.457
73	7.84	33.30	0.335
98	7.74	33.55	0.304
147	7.24	33.90	0.229
197	6.90	33.95	0.215
246	6.42	33.99	0.202

STA 941    44° 54' N    WEATHER 51  
 6 Sept 53    124° 29' W    WIND 180° 4  
 2035 (+8)    DEPTH 1250 fm    61°/60° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.46	32.09	0.478
5	16.44	32.10	0.383
10	16.40	32.09	0.499

STA 943    45° 08' N    WEATHER c.  
 7 Sept 53    125° 26' W    WIND 290° 4  
 0359 (+8)    DEPTH 1200 fm    62°/61° F  
 CLOUDS 0-9/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.74	32.10	0.492
10	16.52	32.10	0.492
20	13.42	32.21	0.516
30	9.50	32.48	0.538
50	8.66	32.63	0.518
75	8.20	32.92	0.431
100	7.80	33.52	0.308
150	7.38	33.89	0.216
196	7.04	33.98	0.165
241	6.90	34.03	0.162

STA 944 45° 19' N WEATHER o.  
 7 Sept 53 125° 41' W WIND 000° 0  
 0643 (+8) DEPTH 1400 fm 62°/61° F  
 CLOUDS 0-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.52	32.00	0.505
10	16.24	32.01	0.504
20	13.44	32.18	0.560
30	11.24	32.55	0.614
50	9.01	32.66	0.534
75	8.50	33.08	0.421
100	7.87	33.51	0.307
149	7.30	33.87	0.231
196	6.91	33.95	0.216
295	6.14	34.01	0.161
492	5.14	34.15	0.089
736	4.40	34.29	0.040
978	3.64	34.45	0.027
1242	3.08	34.51	0.045

STA 946 45° 49' N WEATHER c.  
 7 Sept 53 126° 23' W WIND 340° 24  
 1430 (+8) DEPTH 1460 fm 62°/59° F  
 CLOUDS 6-8/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.98	31.99	0.496
9	16.99	31.92	0.494
19	15.82	32.07	0.519
28	12.92	32.55	0.588
47	10.44	32.61	0.583
71	9.22	32.68	0.489
92	8.68	32.99	0.443
138	7.74	33.71	0.272
184	7.17	33.92	0.222
238	6.66	33.98	0.199

STA 945 45° 29' N WEATHER c.  
 7 Sept 53 125° 58' W WIND 330° 10  
 1044 (+8) DEPTH 1360 fm 67°/62° F  
 CLOUDS 8-7/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.81	31.68	0.493
10	16.66	31.68	0.498
20	11.94	32.49	0.580
30	9.86	32.55	0.542
50	8.92	32.65	0.513
74	8.50	33.02	0.418
98	8.12	33.39	0.361
147	7.40	33.85	0.239
196	6.82	33.99	0.192
244	6.48	34.03	0.168

STA 947 46° 06' N WEATHER c.  
 7 Sept 53 126° 48' W WIND 350° 24  
 1853 (+8) DEPTH 1470 fm 62°/57° F  
 CLOUDS 6-8/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.27	31.83	0.490
9	17.25	31.84	0.489
19	16.72	32.08	0.491
28	13.31	32.54	0.576
47	9.91	32.56	0.462
71	8.34	32.62	0.554
95	7.84	32.71	0.489
142	7.63	33.66	0.311
189	6.99	33.88	0.259
237	6.54	33.96	0.229

STA 948 46° 24' N WEATHER b.  
 7 Sept 53 127° 13' W WIND 350° 16  
 2327 (+8) DEPTH 1430 fm 60°/57° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (°/oo)	O <sub>2</sub> (mg-at/L)
0	16.82	32.37	0.496
10	16.82	32.37	0.490
20	16.82	32.37	0.491
30	12.94	32.55	0.602
50	9.44	32.58	0.593
75	8.20	32.62	0.541
99	7.60	33.04	0.456
148	7.05	33.71	0.346
198	6.67	33.90	0.284
294	5.84	33.98	0.182
488	5.00	34.14	0.079
735	4.14	34.31	0.038
982	3.56	34.42	0.034
1230	2.93	34.51	0.050

STA 950 45° 43' N WEATHER c.  
 8 Sept 53 127° 28' W WIND 355° 12  
 0940 (+8) DEPTH 1510 fm 64°/60° F  
 CLOUDS 0-6/10

Depth (m)	Temp (°C)	Sal (°/oo)	O <sub>2</sub> (mg-at/L)
0	17.20	31.64	0.494
10	17.17	31.64	0.492
20	16.39	32.23	0.521
29	14.34	32.57	0.562
49	10.84	32.57	0.615
72	8.76	32.63	0.543
96	8.17	32.85	0.492
144	7.35	33.62	0.326
192	6.75	33.91	0.271
240	6.27	33.97	0.219

STA 949 46° 01' N WEATHER b.c.  
 6 Sept 53 127° 51' W WIND 340° 12  
 0519 (+8) DEPTH 1500 fm 62°/59° F  
 CLOUDS 0-3/10

Depth (m)	Temp (°C)	Sal (°/oo)	O <sub>2</sub> (mg-at/L)
0	16.97	32.24	0.492
10	16.97	32.25	0.488
20	16.89	32.47	0.494
29	16.77	32.48	0.491
49	11.08	32.55	0.596
73	8.54	32.62	0.563
97	7.67	32.70	0.536
145	7.13	33.61	0.358
151	7.12	33.75	0.356
192	6.72	33.88	0.307
235	6.28	-----	-----
419	5.30	34.09	0.097
587	4.52	34.23	0.040
808	3.98	34.38	0.028
1038	3.44	34.43	0.031

STA 951 45° 19' N WEATHER b.c.  
 8 Sept 53 126° 55' W WIND 350° 16  
 1415 (+8) DEPTH 1520 fm 68°/63° F  
 CLOUDS 8-4/10

Depth (m)	Temp (°C)	Sal (°/oo)	O <sub>2</sub> (mg-at/L)
0	17.36	31.92	0.493
10	17.30	31.91	0.486
20	16.30	32.43	0.527
30	13.66	32.57	0.595
50	10.22	32.58	0.582
75	8.56	32.66	0.538
100	7.84	33.04	0.452
150	7.40	33.72	0.291
198	6.95	33.90	0.243
246	6.26	33.95	0.254

STA 952 44° 56' N WEATHER c.  
 8 Sept 53 126° 23' W WIND 360° 12  
 1830 (+8) DEPTH 1500 fm 67°/63° F  
 CLOUDS 8-6/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.18	31.83	0.514
10	16.18	31.84	0.514
20	13.00	32.20	0.556
29	10.92	32.49	0.580
48	9.32	32.61	0.518
72	8.54	32.68	0.499
95	8.06	32.98	0.453
114	7.76	33.76	0.267
161	7.40	33.84	0.256
190	7.06	33.93	0.240
214	6.72	-----	-----
332	5.74	34.05	0.134
474	5.01	34.12	0.081
670	4.51	34.27	0.038
877	3.82	34.39	0.028

STA 954 44° 21' N WEATHER c.  
 9 Sept 53 125° 35' W WIND 000° 20  
 0222 (+8) DEPTH 1570 fm 61°/60° F  
 CLOUDS 8-5/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.66	31.73	0.500
10	16.65	31.73	0.499
19	16.63	31.73	0.499
29	11.62	32.71	0.485
48	9.22	33.09	0.436
72	8.73	33.49	0.390
97	8.35	33.69	0.367
114	8.02	33.86	0.338
192	7.53	33.94	0.225
239	7.08	-----	-----

STA 953 44° 39' N WEATHER c.  
 8 Sept 53 125° 58' W WIND 005° 20  
 2251 (+8) DEPTH 1550 fm 60°/59° F  
 CLOUDS 8-6/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.18	31.83	0.509
10	16.17	31.83	0.506
20	12.10	32.52	0.582
30	10.29	32.58	0.576
49	9.16	32.62	0.525
74	8.70	32.76	0.489
98	8.08	33.20	0.372
117	7.64	33.77	0.250
196	7.03	33.95	0.218
245	6.50	34.00	0.186

STA 955 44° 03' N WEATHER b.c.  
 9 Sept 53 125° 12' W WIND 000° 17  
 0557 (+8) DEPTH 900 fm 60°/59° F  
 CLOUDS 8-4/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.21	32.21	0.516
10	15.18	32.21	0.516
19	11.06	32.53	0.570
29	9.80	32.60	0.536
49	8.48	32.65	0.540
73	7.75	33.10	0.449
97	8.04	33.70	0.296
116	7.44	33.94	0.214
180	7.20	33.97	0.190
195	7.14	33.99	0.190
268	6.66	34.08	0.134
457	5.62	-----	-----
699	4.66	34.29	0.044
947	3.74	34.42	0.031
1029	3.40	34.45	0.038

STA 956    43° 41' N    WEATHER b.  
 9 Sept 53 124° 43' W    WIND 010° 24  
 1558 (+8) DEPTH 250 fm 62°/60° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	14.32	32.62	0.542
9	14.32	32.61	0.540
19	12.64	32.75	0.500
28	8.54	-----	-----
47	8.64	33.04	0.391
69	7.93	33.49	0.348
93	7.65	33.64	0.335
138	7.26	33.85	0.280
184	7.07	33.95	0.198
232	6.80	34.05	0.168

STA 958    43° 26' N    WEATHER b.  
 10 Sept 53 126° 00' W    WIND 015° 25  
 0323 (+8) DEPTH 1620 fm 61°/60° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.16	31.93	0.492
10	17.17	31.92	0.492
19	17.14	31.93	0.483
28	13.98	32.61	0.547
47	11.18	32.61	0.555
71	9.09	32.69	0.519
95	8.46	32.98	0.453
1142	7.68	33.60	0.335
150	7.60	33.73	0.296
225	6.63	33.93	-----
383	5.46	-----	-----
599	4.50	34.22	0.045
820	3.96	34.35	0.027
1044	3.36	34.44	-----

STA 957    43° 33' N    WEATHER b.  
 9 Sept 53 125° 23' W    WIND 030° 24  
 1958 (+8) DEPTH 1400 fm 60°/59° F  
 CLOUDS -- 0/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.56	32.27	0.510
10	15.52	32.29	0.508
19	15.47	32.26	0.512
28	10.76	32.91	0.454

STA 959    43° 57' N    WEATHER c.  
 10 Sept 53 126° 38' W    WIND 025° 13  
 1132 (+8) DEPTH 1600 fm 64°/62° F  
 CLOUDS 8-7/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.31	31.83	0.476
10	17.29	31.82	0.492
20	17.28	31.82	0.488
29	15.22	32.58	0.530
48	12.04	32.63	0.571
73	9.76	32.65	0.542
97	9.01	32.85	0.477
116	8.37	33.54	0.298
194	7.18	33.89	0.260
243	6.65	33.98	0.190

STA 960  $44^{\circ} 26' N$  WEATHER b.c.  
 10 Sept 53  $127^{\circ} 18' W$  WIND  $020^{\circ}$  13  
 1717 (+8) DEPTH 1560 fm  $64^{\circ}/63^{\circ}$  F  
 CLOUDS 8-3/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.42	31.95	0.486
9	17.38	31.94	0.483
19	17.26	31.94	0.492
28	14.17	32.57	0.547
47	10.53	32.59	0.563
71	9.20	32.67	0.515
93	8.68	32.88	0.450
141	8.02	33.59	0.317
196	7.30	33.83	0.289
294	6.32	34.01	0.198
491	5.20	34.16	0.065
737	4.44	34.34	0.031
983	3.60	34.42	0.029
1222	3.04	-----	-----

STA 962  $45^{\circ} 25' N$  WEATHER o.  
 11 Sept 53  $128^{\circ} 33' W$  WIND  $015^{\circ}$  4  
 0708 (+8) DEPTH 1500 fm  $61^{\circ}/59^{\circ}$  F  
 CLOUDS 6-10/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.42	32.04	0.492
10	17.41	32.09	0.495
20	17.40	32.10	0.489
30	16.90	32.28	0.505
50	11.43	32.56	0.595
75	8.70	32.61	0.540
100	7.80	32.90	0.487
149	7.20	33.73	0.342
196	6.75	33.91	0.263
294	5.89	33.97	0.181
490	4.68	-----	-----
735	3.88	34.24	0.038
978	3.36	34.39	0.036
1220	2.89	34.48	0.042

STA 961  $44^{\circ} 55' N$  WEATHER b.c.  
 11 Sept 53  $127^{\circ} 54' W$  WIND  $030^{\circ}$  12  
 0146 (+8) DEPTH 1530 fm  $61^{\circ}/60^{\circ}$  F  
 CLOUDS 8-4/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.68	31.84	0.482
10	17.67	31.83	0.481
20	17.55	31.85	0.483
30	14.42	32.63	0.540
50	11.06	32.65	0.576
75	9.04	32.79	0.493
100	8.22	33.17	0.416
148	7.70	33.78	0.275
196	7.14	33.95	0.213
246	6.71	33.95	0.183

STA 963  $46^{\circ} 01' N$  WEATHER c.  
 11 Sept 53  $128^{\circ} 47' W$  WIND  $225^{\circ}$  16  
 1346 (+8) DEPTH 1470 fm  $63^{\circ}/60^{\circ}$  F  
 CLOUDS 6-8/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.50	32.38	0.499
10	17.35	32.40	0.499
20	17.11	32.46	0.485
30	15.98	32.48	0.519
50	11.18	32.56	0.584
74	8.66	32.61	0.559
99	7.58	32.74	0.539
149	7.16	33.43	0.405
198	6.66	33.86	0.312
247	6.11	33.92	0.262

STA 964    46° 28' N    WEATHER c.  
 11 Sept 53 128° 28' W    WIND 195° 5  
 2038 (+8) DEPTH 1450 fm 62°/60° F  
 CLOUDS 6-8/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	17.12	32.47	0.487
10	17.08	32.47	0.489
20	16.90	32.48	0.492
30	14.50	32.57	0.593
50	10.58	32.56	0.478
75	8.78	32.60	0.561
100	7.91	32.59	0.539
117	7.48	33.13	0.449
195	6.50	33.88	0.316
241	5.94	33.91	0.289

STA 966    47° 36' N    WEATHER 15  
 12 Sept 53 126° 41' W    WIND 180° 12  
 1055 (+8) DEPTH 1250 fm 63°/62° F  
 CLOUDS 6-7/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.82	32.45	0.493
10	16.83	32.46	0.491
19	16.80	32.46	0.498
28	16.76	32.41	0.495
46	10.89	32.53	0.635
70	8.66	32.62	0.570
93	7.52	32.63	0.569
139	7.16	33.57	0.357
186	6.79	33.83	0.269
233	6.10	33.92	0.288

STA 965    47° 00' N    WEATHER 52  
 12 Sept 53 127° 41' W    WIND 220° 12  
 0246 (+8) DEPTH 1400 fm 62°/60° F  
 CLOUDS 6-8/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	16.90	32.45	0.488
10	16.90	32.45	0.487
20	16.85	32.45	0.492
30	16.29	32.46	0.508
50	9.36	32.68	0.551
75	9.06	32.75	0.516
100	8.82	33.39	0.325
134	4.09	34.27	0.027
980	3.50	34.41	0.028
1228	3.05	34.47	0.039

STA 967    48° 11' N    WEATHER c.  
 12 Sept 53 125° 51' W    WIND 175° 12  
 1709 (+8) DEPTH 300 fm 62°/61° F  
 CLOUDS 6-7/10

Depth (m)	Temp (°C)	Sal (‰)	O <sub>2</sub> (mg-at/L)
0	15.67	31.50	0.536
10	13.76	32.21	0.559
20	10.36	32.41	0.553
30	9.19	32.52	0.551
49	7.87	32.63	0.534
73	7.62	33.11	0.390
97	7.36	33.60	0.319
146	6.90	33.87	0.175
194	6.57	33.94	0.202
212	6.39	33.98	0.162

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